State of California
Health and Human Services Agency *Rural Health Policy Council*

M E M O R A N D U M

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TO: Rural Health Stakeholders/Constituents

FROM: Pablo Rosales, Interim Executive Director

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SUBJECT: RURAL URBAN COMMUTING AREAS (RUCAs) METHODOLOGY REVIEW

The Office of Rural Health Policy (ORHP), within the United States Health Resources Services Administration, utilizes the Rural Urban Community Area (RUCA) methodology to determine the rural or urban status, and therefore, the eligibility, of California healthcare entities seeking ORHP funding. The RUCA methodology results in the designation of some California rural areas as urban, thereby making many rural health providers ineligible for ORHP assistance.

As a result of discussions between OSHPD, the Rural Health Policy Council (RHPC), and the California State Rural Health Association (CSRHA), regarding this matter and its impact upon the state, CSRHA is preparing a policy brief to be presented to Marcia Brand, Director of the federal Office of Rural Health Policy, at the December 2nd CSRHA board meeting.

The attached document entitled, “A Comparison of Rural Urban Commuting Areas With California’s Medical Service Study Areas”, was prepared by Healthcare Workforce & Community Development Division (HWCDD) and RHPC staff to assist with the development of the CSRHA policy brief. It is also intended to provide rural health stakeholders with an overview of the issue. Also attached is a map depicting a side-by-side comparison of RUCA vs. MSSA rural/urban designations.

If you have any questions, please call the Rural Health Policy Council at (800) 237-4492.

Attachments

A REVIEW OF RURAL URBAN COMMUTING AREAS (RUCA) VERSUS CALIFORNIA's MEDICAL SERVICE STUDY AREAS (MSSA) METHODOLOGIES

ISSUE:

The Office of Rural Health Policy [ORHP] within the United States Health Resources & Services Administration [HRSA] has adopted geographic units called Rural-Urban Commuting Areas [RUCAs]. These are used as the basic unit for determining whether a specific area is eligible to apply for ORHP funds allocated for "rural" areas. RUCAs were generated by a series of criteria developed by researchers associated with the University of Washington. Should this methodology be applied to California, rather than it's Medical Service Study Area (MSSA) method, identification of some California rural areas as urban would be inaccurate, thereby making many rural health providers ineligible for ORHP assistance.

BACKGROUND:

The RUCA system adopted by the ORHP uses urbanization, population density, and daily commuting data from the 1990 decennial census to classify tracts, on a scale of 1 to 10, as initially either metropolitan, large town, small town, or Rural Commuting areas, based on the size and direction of the tract's largest commuting flows. Further subdivision and delineation of the initial classification is based on secondary commuting flows. Other agencies within HRSA use geographic units other than RUCAs to determine a community's eligibility for HRSA funds. Two categories of such units – medically underserved areas [MUAs] and health professional shortage areas [HPSAs] – are the basis for most of the HRSA programs (and, by far, the greater part of HRSA expenditures) that require designation of a geographic area as a condition of funding eligibility.

The State of California in 1973 and 1976 enacted legislation requiring the California Health Manpower Policy Commission (now the California Healthcare Workforce Policy Commission [CHWPC]) to determine which parts of California were "medically underserved" and which parts were rural. Although attempts had been made to use data collected by county to characterize areas of the state as medically underserved or rural, previous efforts had been unsatisfactory.

California's 58 counties vary markedly in size and population. Several counties were each comprised of urban, suburban, rural and frontier areas; and most cities encompass neighborhoods of high poverty and affluent neighborhoods. Additionally, the size and geographic diversity of California's counties are typical of the expansive county units of the Far West, whereas counties in Eastern, Midwestern, and Southern states are typically much smaller.

In fact, if California's 58 counties, with a total population of 33,871,648, are aggregated with Arizona's 15 counties, (total population of 5,130,632), and Nevada's 17 counties, (total population of 1,998,257), these three large Far West states, with a total population of 41,000,537, have only 90 counties in total. Both Kentucky, (population – 4,041,769), and Pennsylvania, (population –12,281,054), have over 100 counties each, with a significantly lower total population of 16,322,823. Thus, the likelihood of a Kentucky or Pennsylvania county having a relatively homogenous population is much higher than that of counties in the Far West.

It is also much more likely that one can characterize, without controversy, a specific county in one of these two Eastern states as either rural or urban. But no such characterization can be made of Clark County (Nevada) or San Bernardino, Riverside or San Diego counties (California). Each of these counties contains large cities, but each also encompasses sub-areas larger than most Eastern counties that could be characterized as rural or even “frontier.”

For the Census 2000, the federal Office of Management and Budget [OMB] sought to standardize definitions of rural and urban by stating that any county that had a “census defined place” that exceeded 50,000 would be deemed as urban (a “Standardized Metropolitan Statistical Area [SMSA]”) and all others as rural. But this definition proved unsatisfactory. As an example of the inappropriateness of the SMSA, California’s Butte County contains the city of Chico, but the greater part of the county is agricultural or is of remote mountainous terrain. If one used SMSAs to determine eligibility for applying for rural health funds, communities over 90 minutes drive from Chico within Butte County’s borders would be ineligible, whereas other communities only a few miles away but across the county line would be eligible for such funds.

When in 1976 California decided to have certain state funds available only to defined underserved rural areas, it rejected the idea of using SMSAs or any other mechanism based on whole counties. Instead, the CHWPC developed a geographical framework of sub-county units so as to identify which areas were rural and which were underserved and sub-city units for determining the distribution of health care resources within urban areas. These sub-county units were named “medical service study areas [MSSAs].”

The concept of a state developing a formal process for dividing the state into sub-county units for data collection was of considerable interest to federal officials from the establishment of the process in 1976. In fact, three OSHPD staff members submitted an article on the MSSAs that was accepted for publication in 1981 in *Public Health Reports*, the official journal of the United States Public Health Service.

California was one of the last states to develop a Cooperative Agreement with HRSA, but, when the Cooperative Agreement was established in 1992, one of HRSA’s first initiatives was to recognize the MSSAs as “rational service areas,” a key criterion for HRSA determining HPSAs and MUAs. It created OSHPD’s “Cooperative Agreement” unit to develop the State of California’s responses to applications for federal recognition of HPSAs and MUAs and has invested over $2.5 million in the MSSA process over the past 11 years. As a condition of continued funding, OSHPD agreed to conduct a series of community meetings and provided staff salaries and travel funds to reconfigure the MSSAs, based on newly available 1990 and 2000 census data respectively.

Not only has the Cooperative Agreement staff continued to be funded up until the present day, but in 2002 California was awarded supplemental funds to utilize Geographic Information System [GIS] software, including incorporation of the “Redistricting Tool” that legislators had used to develop California’s Congressional and legislative districts. This innovation created the ability for presentation of population and socioeconomic data to healthcare delivery community stakeholders, and to engage them in interactive sessions where need in their community could be displayed most precisely and effectively. It also provided counties with density and population data to enable them to obtain a much more precise demarcation of rural and urban areas than any system previously employed.

The motivation for establishing the RUCAs was the same as a principal motivation for establishing the MSSAs – to develop geographic units that better demarcated rural and urban areas than county-based schemes, especially OMB's SMSAs. Undoubtedly, any scheme that is based on developing criteria thought to indicate "rurality" might prove to be a better predictor of whether an area is rural than the SMSA system. However, the MSSA system is a more effective agent of public policy for California.

COMPARISON OF CALIFORNIA MSSA AND RUCA METHODOLOGIES:

1. MSSAs: The system is based on statutory authority enacted by the State of California and follows sets of criteria established in public meetings, following months of review by task forces of stakeholders and potential users of the MSSAs and review by California's Office of Statewide Health Planning and Development [OSHPD], which staffs the CHWPC.

   RUCA: When compared with the first advantage of MSSAs, one observes that there is no legislative or regulatory basis for the RUCAs, whereas the MSSAs conform to California law, and simultaneously are consistent with the legislative and regulatory basis for HRSA's HPSAs and MUAs.

2. MSSAs: The MSSAs have been adopted by the federal HRSA as constituting "rational service areas" in accordance with established federal law and regulations governing the declaration of HPSAs and MUAs.

   RUCA: There is no legislative or regulatory basis for the RUCAs.

3. MSSAs: Their development and maintenance are the result of a substantial investment by HRSA (exceeding $2.5 million dollars over the past 11 years) through Cooperative Agreement grants to OSHPD. Not only did the Cooperative Agreement staff continue to be funded up until the present day, but also in 2002 California was awarded supplemental funds to develop [GIS] technology, including incorporation of GIS-based redistricting tools frequently used to develop California's state and local political districts. This innovation created the ability for presentation of population and socioeconomic data to healthcare delivery community stakeholders, and to engage them in interactive sessions where need in their community could be identified most precisely and effectively. It also provided them with land area and population density data, enabling stakeholders to achieve a much more precise demarcation of rural and urban areas than any system previously employed.

   RUCA: Although the Federal Office of Rural Health Policy did support the University of Washington to create the RUCA concept, the total HRSA investment in the California MSSAs is on a much larger and more comprehensive scale.

4. MSSAs: Public meetings (working parties) of stakeholders were held to redraw the MSSA lines after both Census 1990 and Census 2000, to assure that population shifts were properly reflected in current MSSA boundaries; staff time and travel were in part funded by HRSA.

   RUCA: The RUCA concepts have not had the extensive public review, both in California and in HRSA's central offices, that all aspects of the MSSA process have had; nor is there a mechanism by which each local community would assemble stakeholders to determine RUCA boundaries or validate their appropriateness to their communities.

5. MSSAs: The MSSAs are based on census tracts, the principal unit for organizing census data, and are thereby compatible with all GIS technology and other electronic databases that are census-tract based, assuring the integrity and maximum usefulness of data collected by MSSAs. A total of 75 public meetings were held (at least one in each of California's 58 counties) for the Census 2000 reconfiguration alone. The GIS Redistricting Tool allowed all stakeholders present to test different configurations of the county in a real-time, interactive process, until consensus was achieved.

   RUCA: The RUCA data are comprised of a mixture of census tract and zip code information. Zip codes are designed for mail delivery, rather than for data collection, and the United States Post Office uses methods wholly incompatible with census tracts for drawing the boundaries of zip codes. Zip codes themselves are subject to change, and therefore unreliable as a constant regional identifier. Thus, the underlying data that are used to determine whether a given geographical area is rural or urban, or for prioritizing among RUCAs, are inadequate to meet the precision required for equitable treatment of like communities. Furthermore, an underlying theory of RUCAs, that one can determine rurality by observing commuting patterns in and out of urban areas, fails to recognize the current phenomenon of unaffordable urban housing, requiring ever more distant commutes to jobs from more affordable, outlying communities. Even though persons with urban jobs have to live in distant communities, it does not make those communities any less rural.

6. MSSAs: Although the processes of developing MSSAs achieve the goal of identifying the boundaries between rural and urban areas, and yield a result that complements HRSA's HPSA and MUA designations; the RUCAs are an entirely separate mechanism for determining rural and urban areas. RUCAS were developed for HRSA's Federal Office of Rural Health Policy.

   RUCA: The incompatibility of RUCAS with census-tract based GIS technology, diminishes their value for statewide planning and local needs assessment activities in California or any other state that uses GIS to organize data from the Census and other large data bases relevant to planning and make it available to the public. Conversely, California's MSSAs are part of its larger GIS system, whose data are freely available to the public.

RECOMMENDATION:

The HWCDD recommends the following:

1. ORHP should approve any alternative to RUCAs for states that meet the following criteria:

A. The state has developed a geographic framework for defining rural and urban areas that encompasses the entire state, and has been approved by an appropriate unit of HRSA;

B. The state incorporates GIS technology that is based on census tracts and other units of the U. S. Census Bureau that are consistent with those used by HRSA's Shortage Designation Branch; and

C. The state has completed a series of public meetings that obtain public input, and, where possible, consensus on criteria for determining rurality; and

D. The state has completed a series of public meetings of stakeholders in each county to obtain input, and, where possible, consensus on the boundaries of the sub-county units.